

# LV-F Series

## Liquid Flow Controller Specification

Model	LV-F20(PO/MO)	LV-F30(PO/MO)	LV-F40(PO/MO)	LV-F50(PO/MO)	LV-F60(PO/MO)
Flow Range (g/min)	0.02/0.05/0.1	0.2/0.5	1/2/5	10/20	50/100
Measurement Range	5 to 100% F.S.				
Application Liquid*1	All liquids except those corrosive to stainless steel (ex, HCl and HF)				
Viscosity*2	max. 0.01 Pa·s (10cp)				
Accuracy*3	±1% F.S.				
Linearity	±0.5% F.S.				
Repeatability	±0.5% F.S.				
Response	Less than 3sec (T98)		Less than 2sec (T98)		
Operating Temperature*5	5 to 50°C				
Temperature coefficient	± 0.1%F.S./°C max± 1%				
Operating Pressure*6	0.05 to 0.3 MPa				
Pressure Resistance	1MPa				
Pressure Drop*7	-				
Flow Rate Signal	Analog: 0 to 5 VDC Digital: RS485				
Power Supply	+15 V ± 5%, 200 mA -15 V ± 5%, 200 mA				
Leak Integrity	PO Type: Less than 1 to 10 <sup>-8</sup> Pa·m <sup>3</sup> /s (He) MO Type: Less than 5 to 10 <sup>-12</sup> Pa·m <sup>3</sup> /s (He)				
Wetted Material	PO Type: SUS316L, Ni, PTFE, PFA MO Type: SUS316L,Ni				
Standard Fitting	1/16" , 1/8" compression fitting, 1/8" VCR type		1/8" compression fitting 1/8" VCR type	1/4" compression fitting 1/4" VCR type	

\*1 With the LF-F/LV-F Series, flow rate calibration is performed using one specified type of liquid. (Please indicate the type of liquid to be used when ordering the device.)

- Liquids containing solid materials cannot be measured. - Please consult us in advance if you plan to use these devices with liquid mixture for which the mixture ratio may vary.

- With the LV-F Series, if the liquid to be measured contains particle etc., please install a 0.2 μm (Abs) filter on the primary side.

\*2 The LV-F Type can be used with a maximum viscosity of 0.01Pa·s depending on the flow rate range. Please consult us in advance if you plan to use this device with high-viscosity liquids.

\*3 Specification of accuracy, linearity and repeatability is guaranteed against calibrated liquid based on SEMI E56-1296.

\*4 It is the specification which is adjusted by Auto-PID function with our piezo control valve.

\*5 In order to ensure precise measurement, please maintain incoming liquid temperature to be within 10 deg.C lower or 3 deg.C higher than the ambient temperature.

\*6 Specification of Operating Pressure is the pressure range when liquid viscosity is 0.001Pa·s.

\*7 Specification of pressure drop is when liquid (with viscosity of 0.001Pa·s) is introduced at 100% F.S. of measurement point.